



CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : UAM
Created By : Siti Nor Aqilah binti Ahmad

Customer Input

Selected Model / Type : UAM80CFM / Fixed Speed Scroll Chiller Version C
Ambient Temperature : 35.0 °C Frequency : 50 Hz
Chilled Water : EWT 12.22 °C Voltage : 380-415 V
LWT 6.67 °C Country of Origin : Malaysia

Generated Outputs

Full Load Performance		Nominal Data (MS Standard)		Input Conditions	
Cooling Capacity			80.03	80.03	TR
			281.5	281.5	kW
Current	Compressor		161	161	A
	Fan		18	18	A
	Total		179	179	A
Power Input	Compressor		92.16	92.16	kW
	Fan		12.00	12.00	kW
	Total		104.2	104.2	kW
COP			2.702	2.702	kW/kW
Flow Rate			43.67	43.67	m ³ /h
Pressure Drop			31.9	31.9	kPa

- Nominal data is based on the MS2449 standard condition of EWT/LWT of 12.22/6.67°C, and ambient temperature of 35.0°C.
- Input Condition data is based on customer's input condition of EWT/LWT, and ambient temperature.
- Evaporator rating fouling factor = 0.018 m².K/kW, and rating altitude at 0 m.

Part Load Performance

MPLV		3.392										kW/kW
Point		1	2	3	4	5	6	7	8	9	10	
Corresponding Capacity		100.0	77.6	72.4	55.2	50.0	44.8	27.6	22.4	-	-	%
Total Cooling Capacity		80.03	62.11	57.93	44.20	40.01	35.83	22.10	17.91	-	-	TR
Total Cooling Capacity		281.5	218.5	203.7	155.5	140.7	126.0	77.73	63.00	-	-	kW
Total Power Input		104.2	81.73	76.51	59.30	52.08	48.86	29.65	24.43	-	-	kW
Total Current		179	141	131	102	90	83	51	42	-	-	A
COP		2.702	2.673	2.663	2.621	2.702	2.579	2.621	2.579	-	-	kW/kW
Ambient Temperature		35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	-	-	°C
EEWT		12.22	10.98	10.69	9.74	9.45	9.15	8.20	7.91	-	-	°C
ELWT		6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	-	-	°C
Flow Rate		43.67	43.67	43.67	43.67	43.67	43.67	43.67	43.67	-	-	m ³ /h
Pressure Drop		31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	-	-	kPa

Others

MCA		223										A
No. of Refrigerant Circuit		2										-
Refrigerant Type		R410A										-
Refrigerant Charge	System 1/2	25.0 / 25.0										kg/System
Chiller Dimension	W / D / H	2237 / 3263 / 2156										mm
Weight	Shipping	2917										kg
	Operating	3039										kg

Evaporator

Type		S&T										-
Inlet/Outlet Diameter		5" Victaulic Joint										-
Flow Rate	Min / Max	15.00 / 56.70										m ³ /h
Pressure Drop	Min / Max	5.00 / 47.0										kPa

Compressor

Quantity	System 1/2	2 / 2										-
Type		Hermetic-sealed (Scroll)										-
Oil Charge	System 1/2	13.4 / 13.4										L/System

Condenser

Coil												
Tube	Type	Copper Tube										-
Fin	Type	Aluminium Fin										-
Surface Area/ Coil		11.52										m ² /Coil
Fan												
Type/ Drive		Axial / Direct										-
Quantity per System		3										-